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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,464	12/12/2003	Akira Hattori	118042	8812

25944 7590 09/10/2007
OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

PIPALA, EDWARD J

ART UNIT	PAPER NUMBER
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3663

MAIL DATE	DELIVERY MODE
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09/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/733,464		HATTORI ET AL.	
	Examiner		Art Unit	
	Edward Pipala		3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/6/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is in response to Applicant's election with traverse received 5/21/07, to the requirement for election/restriction mailed by the Office on 4/20/07.

In view of Applicant's traversal of the restriction requirement and the accompanying remarks, the restriction requirement of 4/20/07 is withdrawn.

Accordingly claims 1, 3-6, 16 and 18 are presently pending.

Claims 2, 7-15 and 17 have been canceled.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 6/6/07 has been fully considered by the examiner as indicated by the accompanying initialed copy of Applicant's form PTO-1449.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Butsuen et al. (5, 467,283).

With respect to independent claim 1, Butsuen et al. disclose an obstacle sensing apparatus which in which detection of obstacles is said to be performed efficiently by predicting the traveling path of the vehicle by making use of a vehicle speed sensor (6), a yaw rate sensor (7), and a steering angle sensor (5) as shown in figure 1, wherein it is further shown that the velocity and yaw rate sensor are used together to determine a traveling path without the use of the steering angle input, and the velocity combined with the steering angle is used to determine another possibility for the traveling path, and that the two are combined and a correction performed by the selecting unit (10) in order to determine the most accurate path of the vehicle in a turn.

With respect to dependent claims 3-6 and 16 relating to determining a curve's radius depending on the temporal variation of a curve's radius staying below a predetermined value for a predetermined period of time or longer, that said predetermined period of time is shortened as the speed increases, that the detected steering angle is acted upon more "sensitively" when the radius is small and that the amount of correction of a base value is greater for a certain range of steering angle when it is determined that the radius of the curve is determined to be small, please see column 7, line 33 through column 8, line 25 which teaches predicting the traveling path and curvature depending on either steering angle or yaw rate and on whether it is traveling around a sharp turn or on a curve of infinitely large radius.

With respect to claim 18 relating to determining a present lane probability in which a preceding vehicle is running with respect to a first (out of lane) distance and a second

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(preceding distance), please see column 8, lines 38-43 in which it is taught to limit the detection of a preceding vehicle to a traveling path to a dead zone area in order to accurately detect obstacles ahead of the vehicle.

Response to Arguments

4. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Pipala whose telephone number is 571-272-1360. The examiner can normally be reached on M-S 9:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-

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217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-9199 (IN USA

OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'E. Pipala', is positioned above the printed name.

Edward Pipala
Examiner
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ejp